ON THE MOLLUSCA OF BIRKET EL QURUN, EGYPT.

By Edgar A. Smith, I.S.O.

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The Mollusca quoted in the following list were collected by Dr. W. A. Cunnington and Mr. C. Boulenger in the Birket el Qurun, an expanse of water some twenty-five miles in length west of the Nile below Cairo. It is slightly saline, especially in places most remote from the canals and streams which drain into the lake. A list of the species obtained by M. Blanckenhorn includes the following:—

Melania tuberculata. Cleopatra bulimoides. Hydrobia stagnalis. Valvata Nilotica. Neritina Nilotica. Planorbis Ehrenbergi. P. marginatus, var. subangulata. Corbicula fluminalis.

To this list I now add a species of Lanistes, a Corbicula, and an Isidora. Whether the Paludestrina obtained by Messrs. Cunnington & Boulenger is the same shell as that quoted by Blanckenhorn as Hydrobia stagnalis, L., var. cornea, Risso, is somewhat uncertain, as it is quite impossible to know what his idea of that form may have been.

The *Helix stagnalis* of Linnæus, founded on the *Turbo stagnalis* of Baster, according to Hanley is a doubtful species, but may be the *Helix* [*Turbo*] ventrosa of Montagu. On the contrary, Jeffreys regarded Baster's species the same as the well-known *Paludestrina ulva*.

All of the eleven species now enumerated may be regarded as Nilotic forms, some ranging into Upper Egypt or even to the great lakes of Central Africa.

The localities quoted are situated as follows, and were the places where the collectors encamped for a time:—

(1) East End Camp. At the extreme eastern end of the lake.

(2) Taban Bay, (3) the Sand-spit, Taban Bay, and (4) Promontory Camp. On the north shore, east of the middle of the lake.

(5) Kahk Camp, (6) Wady Camp, (7) mouth of Wady, west of road.

All south of the lake, near the middle.

1. VIVIPARA UNICOLOR (Olivier).

Hab.—From beach near Kahk Camp, dead shells only; one living example from Taban Bay.

2. CLEOPATRA BULIMOIDES (Olivier).

Hab.—Dead shells from beach near Kahk Camp; and live specimens in swamp, East End Camp.

3. Lanistes carinatus (Olivier).

Hab.—Swampy ground, East End Camp.

¹ Zeitsch. deutsch. geol. Gesell., vol. liii, p. 463 (1901).

4. PALUDESTRINA PERAUDIERI (Bourguignat)?

Hydrobia Peraudieri, Bgt.: Spicil. Malac., p. 108 (1862); Malac. Algérie, vol. ii, p. 227, pl. xiv, figs. 5–8.

Hab.—On rushes growing in three feet of water, shallow bay of lake, east of road, Wady Camp; also on stones in shallow water, Promontory Camp; and dead from beach of Sand-spit, Taban Bay.

I do not feel certain that all the specimens from the various localities belong to one and the same species, as they exhibit some variation in form, the convexity of the whorls, etc. They appear, however, to agree closely with examples of this Algerian species. but I cannot affirm that they are absolutely the same. In a genus where the distinguishing characters are so few and not striking, the identification of the species becomes extremely difficult, and it really is necessary for one to study the genus as a whole before one can understand at all clearly the distinctions between the various species. Indeed, it is almost impossible from a study of the shells only, and a knowledge of the animals is really necessary before one is in a position to uphold or deny the validity of many so-called species which have been described from the shells only. The Hydrobia stagnalis, Linn., var. cornea, Risso, quoted by Jickeli, may be the same species.

5. VALVATA NILOTICA, Jickeli.

Valvata nilotica, Jickeli: Nova Acta Acad. Cæsar. Leopold. Nat. Curio., vol. xxxvii, p. 233, pl. vii, figs. 29a-c (1874).
Hab.—Beach of Sand-spit, Taban Bay, dead shells only.

6. MELANIA TUBERCULATA (Müller).

Hab.—Dredged on mud in about one fathom, off mouth of bay east of the Wady and off East End Camp; also dead shells from beach of Taban Bay.

7. NERITINA NILOTICA, Reeve.

Neritina nilotica, Reeve: Conch. Icon., vol. ix, figs. 157a, b.

Hab.—Beach near Kahk Camp, dead shells only.

Martens is probably right in his supposition that *N. arctilineata*, Sowerby, is the same as this species.

8. ISIDORA CONTORTA (Michaud).

Hab.—On reeds growing in swamp near mouth of Wady, west of road.

9. Planorbis cornu, Ehrenberg.

Hab.—On reeds growing in swamp near mouth of Wady, west of road, and beach of Sand-spit, Taban Bay.

¹ Fauna Land- und Sussw. Moll. Nord-ost-Afrika, p. 247.

10. Corbicula fluminalis (Müller).

Hab.—Dead shells from beach of Taban Bay.

These specimens vary so much in shape that the extreme forms might well be regarded as distinct species.

11. Corbicula radiata (Philippi).

Hab.—In swamp near mouth of Wady, west of road. A single specimen only.